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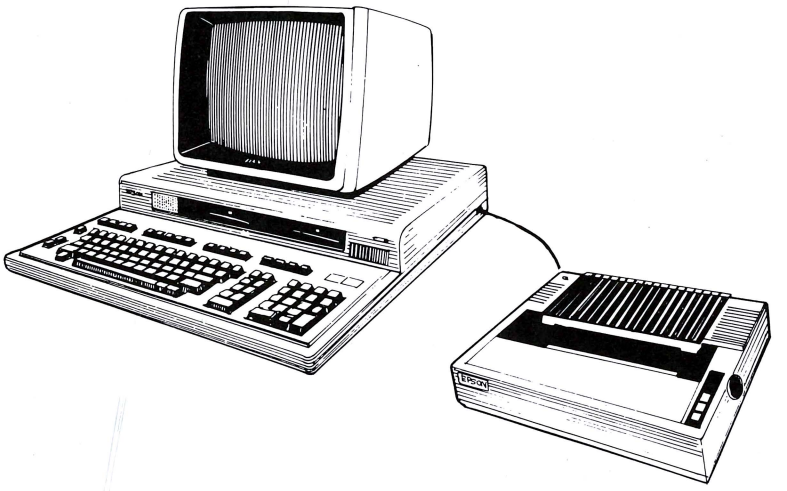
July/August 1983

EPSON Connection

P.O. BOX 14027 / DETROIT, MI 48214 (313) 822-0090

FIRST COMMEMORATIVE ISSUE OF THE EPSON CONNECTION NEWSLETTER



We have just started a national QX-10 / HX-20 Users Group and this is the first issue of our bi-monthly newsletter.

This organization is not related to Epson in any monetary or formal fashion, it is the formation of a group who own, use, or are interested in the Epson Computers and related products. We will not be selling products in competition with the dealers, we plan to provide a supportive network to other users through the sharing of ideas, experiences and information. Epson products have proven to be exceedingly reliable and through this newsletter, we hope to help you get the most out of your computer.

The Newsletter will contain some regular sections such as: Programmers Corner; Technical Information; Software Sources; Software Review; Feature Program; Questions & Answers. It will also contain additional special articles about special uses, problems and events as they are either sent in by users or written or experienced by our staff. It will be your responsibility as a member to share with us different things that you have tried, or problems you have encountered. Through this newsletter medium, we will share your helpful information and experiences with other users.

You will find a membership form within the newsletter, please take the time now to fill out the form and return it to us promptly. This will guarantee you receiving the next issue of the ***Epson Connection.***

QX-10 PROMOTION

Epson is doing a promotional sale for the QX-10 until September 10th that is worth taking advantage of. If you haven't already bought one, consider the 256K QX-10, it comes complete with monitor, dual disk drives, keyboard, CP/M, CP+ and Microsoft basic, Valdocs, 3-pack of Peachtree software— Peachcalc, Mailing List Manager, Spelling Proofreader, RX-80 printer and cable. Suggested price $2995.

There may be some trade value if you want a more expensive printer, ask your Epson distributor if you are interested.

FORMING LOCAL USERS GROUPS

We will be assisting the formation of local clubs for Epson computer users. Please send in your name, address (including zip code),, and indicate which computer your have. We will put you in touch with others in your area. Let us know if you are interested in coordinating a local group for your area.

Advertising— Due to requests coming in, The Epson Connection will accept advertising for the Christmas issue only. This may become a yearly occurance, but will not affect the other issues this year. If interested, leave a message at (313) 822-0090, we will send you the needed information; but please act quickly.

CP/M AND YOUR EPSON

One of the disks you received with your Epson QX-10 contains CP/M— the key which unlocks literally thousands of programs for your Epson. This article briefly describes what CP/M is, what it does for your Epson, where you can find more information, and where you can find more software, some of it free, for your Epson.

CP/M is an acronym derived from Control Program for Microcomputers. It was written by Gary Kildall in the early 1970's while he was working for the Intel Corporation, one of the largest manufacturers of computer "chips" in the world. In 1976, Gary formed Digital Research to market CP/M and other "systems" programs.

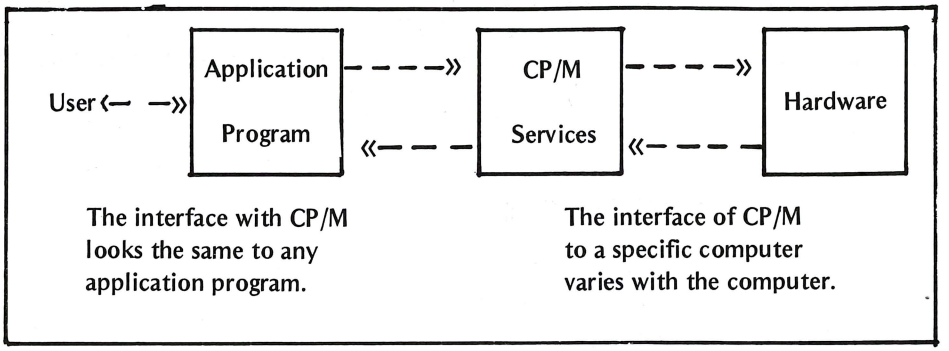
CP/M Unlocks thousands of programs

The software which runs on any computer can be divided into two broad classes, systems programs and applications programs. A general ledger program, a spreadsheet program such as Visicalc, or a game such as Adventure are three examples of applications programs. They are designed to help you use your computer to perform some task— including the "task" of having fun. Systems programs, on the other hand, are designed to help other programs perform tasks. Just as there are several varieties of applications programs, there are several types of systems programs. The most basic and important type of system program is known as the *operating system*. This is the foundation upon which all the other programs, both systems and applications, is built.

CP/M does several things, but generally its job is to control the access of other programs to the resources available on your microcomputer. What are these resources? They include the random-access memory (RAM) in your Epson, the space available for disk files on the diskettes in the two disk drives of your system, the keyboard and video display, and your printer (if you purchased one). CP/M does this by providing a variety of service subroutines (small programs) which all the other programs can use to get to these resources. For example, one of these service subroutines is responsible for reading what you type at the keyboard and passing it along to whatever application program you happen to be using. Another is responsible for displaying messages from the application program on your video display.

A particularly important set of these subroutines takes care of reading information from diskette files, writing information to diskette files, making new files, and deleting old ones. This set of services make up the file system.

These service routines must be tailored to work on a specific machine, but look the same to all of the programs which call upon them. The diagram above illustrates these relationships. The great advantage of this is that any application program written for CP/M on one machine will work on nearly any other machine which uses CP/M, and there are thousands and thousands of programs written for CP/M. The store where you purchased your Epson probably sells some of the commercially available programs written for CP/M, and many more are advertised each month in Byte. A list of a few of the programs available is on pages 81 to 86 of the *CP/M Primer* which came with your CP/M diskette.



The interface with CP/M looks the same to any application program.

The interface of CP/M to a specific computer varies with the computer.

CP/M is the most popular operating system in the world, including operating systems for large "main-frame" computers, because there are so many programs which work with it. Many of the large number of CP/M users have formed very active CP/M users' groups (CPMUG's) to share advice and experience. There is probably a local CPMUG in your area; ask your local computer dealer to put you in touch with one. One of the services which the CPMUG's provide is the distribution of user-written software for only a nominal charge (e.g. the cost of a diskette, a mailer and postage).

If you have a modem, allowing your Epson to communicate with other computers, you can obtain some of this software for the cost of a telephone call. Many local CPMUG's operate CP/M systems which can be used remotely over the telephone using your Epson and a program called MODEM. This program lets your computer work as a terminal for the remote CP/M system. One of the things which MODEM can do is to provide a type of "electronic mail" which allows programs on the diskettes of the remote system to be transmitted over the telephone line to the diskettes of your Epson.

The first place to go to find out more about CP/M is no further than the *CP/M Primer* by Stephen Murtha and Mitchell Waite which came with CP/M. At your local computer dealer or bookstore you will find many books about CP/M. *The CP/M Handbook (with MP/M)* by Rodney Zaks, published by Sybex, is one of the better ones. Your bookstore or computer dealer may also have the magazine, *Microsystems*, which is devoted mainly to CP/M.

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See our first practice program using this graphics chip. More programs will follow in future issues.

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Some versions of Valdocs show the settings for the Hayes smart modem if you press [mail] key and then press [help]. You have to open up the modem. Take a small flat screwdriver and insert along the side under the black flap that protrudes backward from the front face. Just edge the screwdriver in enough to open it outward and pull forward. It then will come off and expose some little dip switches on the left side facing the front. Set the switches in the following manner: UP UP DN UP DN UP DN DN and then snap the cover back in place gently. Next attach the RS232 cable to the Hayes and to the Serial port of the QX-10. Turn on the modem and the Epson, press [m]enu key, and [m]enu of applications, [l]eft drive, [s]etup.com return twice, [c]ommunications option, and select the baud rate, then undo to the editor, select [m]ail, and [p]erson to person network, and indicate what number you want the computer to dial. Computer phones listed in your address book will be immediately accessible instead of typing the number in again. Phone communications with your computer open up a whole new computing world. You will probably want to subscribe to a network like Source or Compuserve. In a forth coming issue there will be a review of these networks, and prices.

HARD DISK DRIVES FOR THE QX-10

Comrex has been shipping their new hard disk drive unit (Comfiler) to their distributors, look for one soon at your dealer.

The hard disk is formatted to 10 megabytes, and operates under the CP/M operating system. A special patch program makes it possible to use it with Valdocs, and yes, it speeds it up. The current Valdocs disk takes 45 seconds to be ready to use from the time you turn the system on, with this hard disk, it takes only 30 seconds. This hard disk unit is a "fixed" disk and is not removable like the floppy disks used with your QX-10. Suggested retail, $2450.

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Look for our review of these two hard disk systems in the next issue.

GRAPHICS

The QX-10 uses a powerful graphics display controller chip made by NEC Electronics (7220 microprocessor chip). This chip controls the raster scan-type screen you look at. It displays 80 characters by 25 lines in regular character mode, and 640 by 400 dots in graphics mode. In graphics mode one can draw lines, arcs, circles, quadrilaterals and other graphics forms at a speed of 960 nanosec/word. The memory used by this controller is 32KB for the ASCII type and 128KB for the HASCI (valdocs) version. It has a zoom feature that allows figures to be enlarged as much as 16 times. It also allows scrolling and panning, partitioning of the screen into differnt "windows" (4 maximum), and each window area can be treated independently. There are light pen inputs and controls on this chip which will be used in the future. To program the GDC Controller you need to write a program to address its different functions. Included here is a short program with explanation of what is being done. As you work with it, be thinking about your own creative programs. Send them to us so that we can share them with others. We will expand on this in the following newsletter.

```
10 'Comment:
20 '    "No comment."
30 DEFINT A-Z
40 PRINT CHR$(26);
50 INPUT;"Enter a word:  ",K$
60 K$=K$+" "
70 WIDTH 79
80 PRINT CHR$(26);
90 FOR I=1 TO 1975\LEN(K$)
100 PRINT K$;
110 NEXT I
120 PRINT
130 FOR L=1 TO 5
140 FOR I=0 TO 15 STEP 1
150 GOSUB 220
160 NEXT I
170 FOR I=15 TO 0 STEP -1
180 GOSUB 220
190 NEXT I
200 NEXT L
210 GOTO 270
220 OUT &H39,&H46
230 OUT &H38,I*16
240 OUT &H3A,I
250 FOR K=1 TO 100:NEXT K
260 RETURN
270 OUT &H39,&H46:OUT &H38,0:OUT &H3A,0
280 GOTO 40
```

Here's a little program to try out the zoom feature of the Graphics Controller chip (G.D.C. 7220). Put your CP/M disk in the right drive (Valdocs in left), press [menu], [R]un a specific program, [R]igut drive, select [MBASIC] return 2 twice, when it says [OK] type this program in just as you see it. You may use upper or lower case letters, however, be sure to use the numeric 0, and not the letter O. This demonstrates the 16 times power of the zoom.

GOOD LUCK!

Valdocs Control Operations

The following cutout and save section is handy to keep near your QX-10 to help speed your editing. "C" stands for pressing the control CTRL key plus the one following—

CURSOR MOVEMENT

C-A moves one WORD to LEFT
C-F moves one WORD to RIGHT
C-S moves one LETTER to LEFT
C-D moves one LETTER to RIGHT
C-E moves UP one LINE
C-X moves DOWN one LINE
C-W to TOP of DOCUMENT
C-Z to BOTTOM of DOCUMENT
C-C to NEXT PAGE
C-R to PRIOR PAGE

DELETIONS

C-Y deletes to END of LINE right
C-T deletes the WORD to RIGHT

MENUS

C-B displays BLOCK menu
C-K displays MISCELLANEOUS
C-L displays LOOK FOR menu
C-M displays MISCELLANEOUS MENU
C-O displays ON SCREEN FORMAT menu
C-P displays PAGE menu
C-Q displays QUIRKS menu

OTHER

C-Print (key) SCREEN DUMP prints everything on the screen
C-Stop (key) BLANKS SCREEN
C-Style (key) TOGGLES capital letters = small letters

QUESTIONS & ANSWERS

Q– Sometimes my screen just plain goes blank while I am working on something.
A– Your Epson is setup to go into "sleep mode" when you haven't entered something for a period of time to save on the life of the screen. If this isn't the case you may be having problems with your disk, or you should check the little dip switches on the back of the computer, only the No. 1 switch sould be down.

Q– What happens when all of a sudden I get [A>] when I am using Valdcos.
A– This means shomehow you have exited Valdocs to TP/M and you need to type <RESTART>, you will go back to Valdocs.

Q– My time display doesn't keep the right time.
A– Leave your computer plugged in and turned on for at least 12 hours. You may encounter some problems with the time changing when you change to a CP/M disk. This is being taken care of with the newer CP/M version. You can also exit to CP/M by having it in the right hand drive, Valdocs in the left, and pressing <menu> key, and selecting <R>un a specific program.

Q– I would like to use my serial printer with Valdocs.
A– At present this option is not supported in printer choices in Valdocs. The next version should have this available.

Q– Please explain what the Error codes mean.
A– **Error FF Disk B Retry–**
No diskette in that drive
Error 10 Disk X Retry–
Cannot read track/sector. Header record not available.
Error 08 Disk V Retry–
Read Checksum error. Try reseating the disk in the drive.
Error 01 Disk A Retry–
Diskette contains no data or no format.
Bad File Name–
Check the spelling of the file name, illegal.

Q– How can I get the cursor to scroll directly downward?
A– By pressing control and the down arrow.

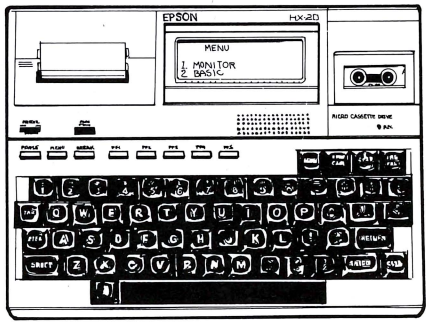
Q– What is CP/M and TP/M?
A– Read the main feature in this newsletter for CP/M, TP/M is another operating system. The next newsletter issue will describe TP/M in some detail.

Q– I want to be able to print a letter I prepared on the screen, without having to store it, since I don't want to save it.
A– At this time with Valdocs it isn't possible. There aren't any other word processing programs I know of that let you do that either. Future versions of Valdocs may include this.

SOFTWARE

SOFTWARE SOURCES FOR THE QX-10

At present there are several companies that are providing software for the QX-10 to the dealers; Software Distributors, Softwarewholesalers, Lifeboat Associates, PeachTree, and Star Software Systems. Most of the companies discourage calls from users, and only sell to Dealers. The wide varieties of software available include full business accounting and inventory packages, word processing programs, medical and dental packages, various programming languages, Dbase II, and some games. These programs are all used with your CP/M or TP/M system and not yet with Valdocs. One of the Distributors, Computronics in New York, has taken Wordstar and written a program to redefine the keyboard to make it more convenient to use with your QX-10. They also have made an overlay to put on the keyboard. This will be available to your dealer in the near future. In addition, there is– Job Cost Management System (JCM) for the QX-10 which provides accounting functions for a small business that operates on a job cost basis. Targeted users are construction firms, painting contractors, automotive repair shops, and job related contractors and businesses. Retail cost $260. Contact Curtiss Evans, Systems Analyst, Advanced Micro Systems, Inc., 5209 W. 94 Terr., Prairie Village, Kansas 66207, 913-648-0600.



SOFTWARE FOR THE HX-20

Software for the Hx-20 has been more difficult to find. There is a Smart Terminal Program which allows you to use a modem with your HX-20 and connect up to the phone world. The HX-20 becomes an intelligent terminal, and information from the phone is stored in a memory buffer of up to 5000 characters. You can erase, modify, save, print or send the buffer to the RS232 port. You can even use it as a mini word processor. This program was written at Microprocess Computer Systems, Inc., an Epson distributor, and is available to Epson dealers from them.

Please let us know of other programs available for both computers as you discover them, so we can share the information in the newsletter.

NEW PRODUCTS

Comrex is coming out with a modem card that will fit inside the QX-10 in an option slot. The Communicator CR-103 is a 300 baud modem, asynchronous, full duplex, with two connectors, one to the phone line, and one to a phone you can have attached. Suggested retail is $159.95. *This does work very nicely.*

Future Valdocs plans— Valdocs versions with spread sheet, database, financial planner, and mailmerge are reportedly in the works. These will be treated as additional software and sold separately for the QX-10. There is no word on when they will be available or how much they will cost.

RUMORLINE

Quadram is in the process of making internal processor boards for the QX-10 option slots that will run Apple, and IBM (8088) software.

Valdocs Version 1.17(or8)—due around the first week of August is purported to be the final issue of the original Valdocs. It does have on screen underlining by using the **style** key on the HASCI keyboard. It will then underline while you type until you press it again, this is similar to the way the italics and bold keys work now. The **size** key will provide line spacing while using the editor. It toggles three different amounts of line spacing, a single, double and three line space. It allows you to move between the various spacings while typing a document instead of having to press return repeatedly and it will keep that type of line spacing while inserting or deleting sections of text.

Another change provides for two new options under the print menu. 1) you can choose how many lines to skip at the top of the page. 2) you can have the bottom edge of the paper automatically advanced up to the printer tear bar instead of advancing it by individual line feed.

Help key comments have been rewritten and expanded upon to actually provide more helpful suggestions, you may want to review them on the new version.

Comscriber— a plotter, by Comrex, which comes with a QX-10 parallel cable and tutorial disk for CP/M and TP/M will be available in August. Suggested retail is $799. This is a single pen, with interchangeable pens, plotter. We will review this in a forth coming issue.

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More Graphics
Printers for the HX and QX
Software Review
Hard Disk Drives for the QX reviewed

Q X H EPSON Connection
P.O. Box 14027 / Detroit, Michigan 48214

THE VIDEO & COMPUTER PLACE, INC.
844 North Court Street
Medina, Ohio 44256
(216) 722-0770

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All inquiries regarding membership; editorial suggestions; problem solving; questions; programs or information about forming a local Users Group should be sent to THE EPSON CONNECTION, P.O. Box 14027, Detroit, Michigan 48214.

PRODUCTION STAFF

Carolyn McCarthy/Publisher, Editor
Maureen Mertz/Publisher, Prod. Mgr.
Daniel Rourke/ Editorial Staff

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MEMBERSHIP FORM

NAME _____

COMPANY NAME _____

CITY _____ STATE _____ ZIP _____

Canada CITY _____ PROVINCE _____ POSTAL CODE _____

PHONE _____ COMPUTER PHONE _____
Area Code

Which Epson model did you purchase? QX-10 ___ HX-20 ___

For what purpose did you acquire your Epson? Personal ___ Business ___

If Business, what profession? _____

Did you purchase a printer? Yes ___ No ___ If yes, which make & model? _____

Do you belong to a computer network? Source ___ Compuserve ___ Other _____

___ Enter my name into the Users Group, enclosed is my check for $10.00 ($12.00 Canada)

___ Enter my name as a User, I am not interested in joining at this time.

___ I would like to organize a local group.

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THANK YOU, AND WELCOME TO THE EPSON FAMILY!